

Burak Tekdamar

161044115

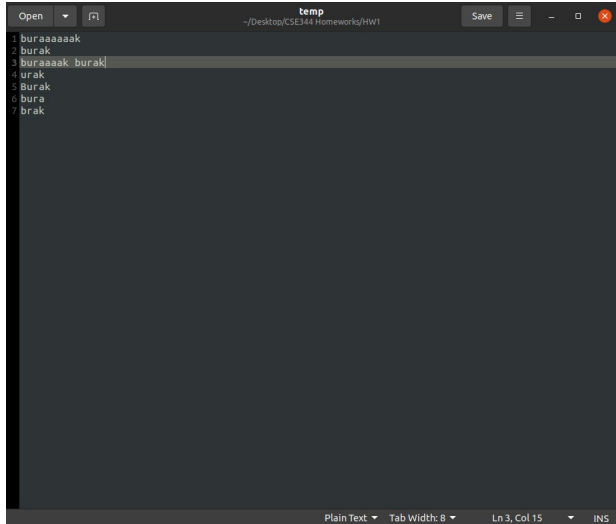
CSE 344 HW1 REPORT

First of all, I checked whether the arguments entered from the terminal are valid. By checking the 2nd argument character by character at the `isArgumentsValid` function, if there is an error in use, I returned an error message and terminated the program. I kept the strings `str1`, `str2`, `str3`, and `str4` by creating a struct named `arguments`. Then I opened the file and locked it with the `fcntl` function. I kept the file I opened in a buffer by reading it character by character.

Then I compared the file content with the pattern the user entered character by character. I wrote a separate if condition for each special character in the pattern. I kept a string as many as the number of characters in each matched character. Then I subtracted the number of characters I kept from the current index and replaced the first string that matched the pattern after that point with the string entered by the user. The condition for finding a pattern in the file is that the index I keep for the pattern is equal to the length of the pattern. For example, if the user has entered `"bura*k/tekdamar"` as a command and there is a string such as `"buraaaaaak"` in the file, the character length will increase for each letter `"a"`, but the pattern index will increase only once. I wrote the output to a temporary file. If the user wants to do multiple replacements, this temporary file will be read for the 2nd replacement. Then this file will be written into the input file entered by the user.

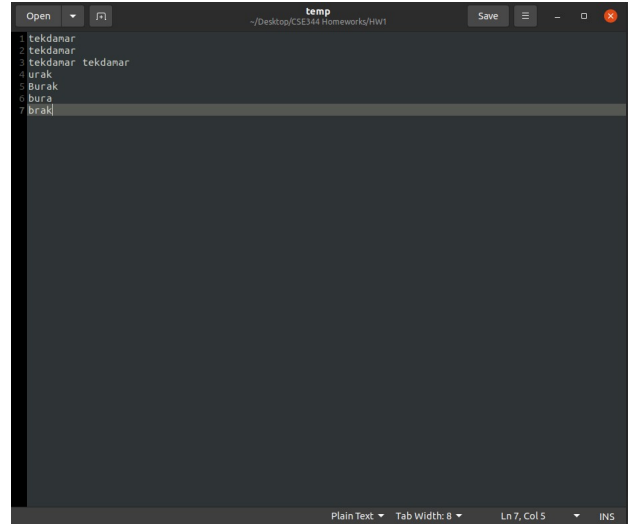
Outputs

Command: `./main '/bura*k/tekdamar/i'` filename



```
1 buraaaaaak
2 burak
3 buraaaaak burak
4 urak
5 Burak
6 bura
7 brak
```

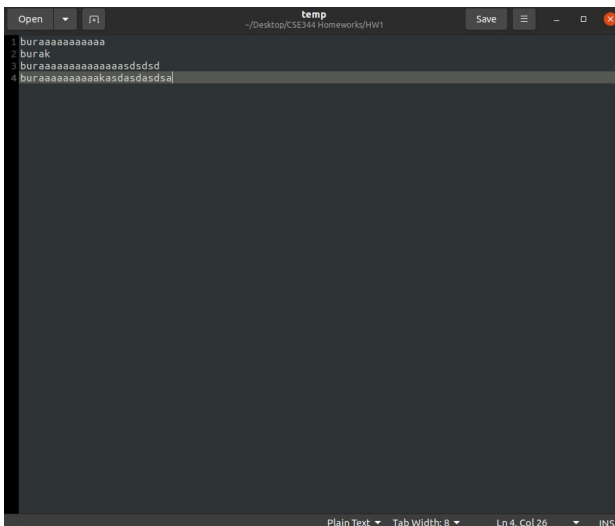
Before



```
1 tekdamar
2 tekdamar
3 tekdamar tekdamar
4 urak
5 Burak
6 bura
7 brak
```

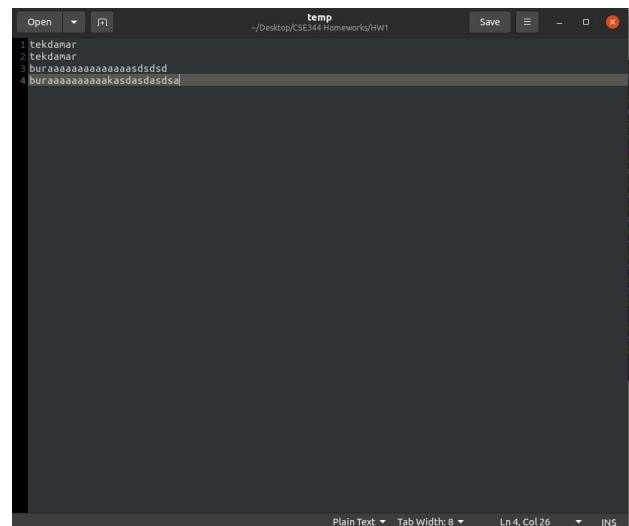
After

Command: `./main '/bur[ak]*$/tekdamar'` filename



```
1 buraaaaaaaaa
2 burak
3 buraaaaaaaaaaaaasdsdsd
4 buraaaaaaaaaakasdasdsdsaj
```

Before



```
1 tekdamar
2 tekdamar
3 buraaaaaaaaaaaaasdsdsd
4 buraaaaaaaaaakasdasdsdsaj
```

After